

CLAIMS

1 **1.** A method for developing an application, comprising:
2
3 providing an application framework including components that define a
4 scope of the application, startup and shutdown behavior for the application, and
5 how the application manages windows and resources;
6 providing a navigation framework including components that provide
7 navigation functionality, journaling, journal extensibility, and structured
8 navigation; and
9 providing application lifecycle management components that define how
10 the application is deployed, installed, activated, updated, rolled back, and removed
11 from a computing system.

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13 **2.** The system recited in claim 1, wherein the component that defines the
14 scope of the application and the startup and shutdown behavior of the application
15 includes an application object.

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17 **3.** The system recited in claim 1, wherein the application object further
18 includes functionality that defines how the application manages the windows and
19 resources.

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21 **4.** The system recited in claim 1, wherein the application framework
22 further includes components that define the behavior of windows associated with
23 the application.
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1 5. The system recited in claim 1, wherein the application framework
2 further comprises a component that defines a mechanism that allows the
3 application to access common window properties of a hosting environment in a
4 like manner regardless of whether the hosting environment is a browser or a
5 standalone window environment.

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7 6. The system recited in claim 1, wherein the component that provides
8 navigation functionality comprises a NavigationApplication object.

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10 7. The system recited in claim 6, wherein the NavigationApplication
11 object identifies an initial resource to which the application navigates when
12 launched.

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14 8. The system recited in claim 7, wherein the NavigationApplication
15 object further includes navigation related events that are fired in response to the
16 occurrence of a navigation.

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18 9. The system recited in claim 7, wherein the NavigationApplication
19 object further comprises a Properties collection in which is stored state
20 information about the application.

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22 10. The system recited in claim 1, wherein the component that provides
23 journaling and journal extensibility comprises a Journal object.

1 **11.** The system recited in claim 1, wherein the navigation framework
2 further comprises a NavigationWindow component associated with the application
3 and that persists across navigations.
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1 **12.** A computer-readable medium encoded with computer-executable
2 components implementing an application, the components comprising:

3 an application class that defines a scope of the application, the application
4 class including at least a shutdown method that closes the application;

5 a window class that defines a window object, the window class including a
6 method for invoking a parent-modal dialog that blocks interaction with a parent of
7 an instance of the window class but not other windows associated with the
8 application; and

9 a pane class that defines an object for mediating between the application
10 and a hosting environment, the hosting environment being either a browser or a
11 standalone window.

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13 **13.** The computer-readable medium recited in claim 12, further
14 comprising an IWindowService interface that exposes properties for interacting
15 with a window of the application in a manner consistent with a standalone
16 window, and a BrowserWindowService class that exposes additional properties
17 consistent with a browser window.

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19 **14.** The computer-readable medium recited in claim 12, further
20 comprising:

21 a NavigationApplication class that includes a property that identifies an
22 initial resource to which the application navigates when launched;

23 an INavigator interface that exposes navigation-related properties, methods,
24 and events associated with the application; and

1 a NavigationWindow class that defines an object that persists across
2 navigations within the application.

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4 15. The computer-readable medium of claim 14, further comprising a
5 NavigationContainer class.

1 **16.** A computer-readable medium encoded with computer-executable
2 components implementing an application, the components comprising:

3 a NavigationApplication class that includes a property that identifies an
4 initial resource to which the application navigates when launched;

5 an INavigator interface that exposes navigation-related properties,
6 methods, and events associated with the application; and

7 a NavigationWindow class that defines an object that persists across
8 navigations within the application.

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10 **17.** The computer-readable medium of claim 16, further comprising a
11 NavigationContainer class.

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13 **18.** The computer-readable medium of claim 16, wherein the
14 NavigationApplication class includes a synchronous attribute that, if set, causes
15 each element of a resource associated with the application to be displayed
16 simultaneously.

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18 **19.** The computer-readable medium of claim 16, further comprising
19 a Journal class that defines an object for storing a navigation history
20 associated with the application; and

21 a JournalEntry class that defines a particular entry within an instance of the
22 Journal class.

1 **20.** The computer-readable medium of claim 19, wherein the Journal
2 class further defines a first method for adding an entry to the object, and a second
3 method for removing another entry from the object.
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5 **21.** The computer-readable medium of claim 19, wherein the
6 JournalEntry class comprises a name property for storing text associated with a
7 particular navigation, and a URI property for storing a locator of the particular
8 navigation.
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10 **22.** The computer-readable medium of claim 19, further comprising a
11 PageFunction class that defines an object encapsulating a unit of functionality and
12 that can be called as a resource from other resources associated with the
13 application.
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15 **23.** The computer-readable medium of claim 22, wherein the
16 PageFunction class further includes a RemoveFromJournal property that indicates
17 whether the PageFunction should be removed from a journal after the
18 PageFunction functionality is complete.
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